Editorial Comment

Compliments to the authors for presenting a small, single-center pilot study looking at the impact of amniotic membrane as an adjunct to urethral dilation in improving recurrence and symptom-free duration for the management of anterior urethral stricture. Their conclusion that amniotic membrane adjunct would not reduce the risk of recurrence could be related to multiple factors.^[1]

Urethral dilatation has never been considered a curative treatment. The multiple irregular tears that dilatation causes in the stricture area likely heal with increased fibrosis. The question would be, could the amniotic membrane adjunct work after visual internal urethrotomy that has a single clean incision?^[2,3]

Amniotic membrane adjunct prevents fibrosis but would not have much role in preexisting fibrosis. Most strictures would already have a significant fibrosis in place, and amniotic membrane adjunct is unlikely to reduce the ongoing fibrotic process. Could a preprocedure sonourethrogram to rule out significant spongiofibrosis improve the results of amniotic membrane adjunct?^[4-6]

In this era, when paclitaxel-coated balloon urethral dilatation is increasingly popular, the efforts of the authors to look for a cheaper, easily available, and minimally invasive option for reducing recurrence of this common problem are appreciable.^[3,4]

Tissue engineering and scar modulation to augment stricture treatment is an exciting area of research, but the role of acellular matrix is limited owing to inadequate native cellular ingrowth past 1 cm from the native urothelium. Steroids, mitomycin C, paclitaxel, and hyaluronidase are being currently used to augment the endoscopic urethral stricture treatment. Platelet-rich plasma, adipose-derived mesenchymal stem cells, and tyrosine kinase and YAP/ TAZ-pathway inhibitors like nintedanib which is a competitive inhibitor of both nonreceptor tyrosine kinases (nRTKs) and RTKs hold promise but need additional prospective studies. Currently, cellular and noncellular therapies have been receiving considerable attention due to their regenerative capacity, and scar inhibitors such as rapamycin and docetaxel, placed into the stricture after urethrotomy to modulate the scar have been used. [3,4]

A myriad of options exists with a multitude of mechanisms of action and treatment delivery. The current use of these adjuncts is not specifically endorsed by any international urological society guidelines due to limited long-term follow-up and uncertainty about the optimal drug, dose, volume, and delivery technique including off-label use of these agents.^[3]

Posturethral dilation, a small-size catheter should be used and that should be removed before 72 h as there is no evidence

suggesting that leaving the catheter longer than 72 h or use of large size catheter improves safety and outcomes.^[7]

In the presence of options with better long-term results for anterior urethral stricture like one-stage urethroplasty for penile urethral stricture and nontransecting urethroplasty with or without augmentation for bulbar urethral stricture <1.5 cm, dilation as a primary treatment should be considered very carefully and in properly selected patients only.^[1]

Venkat Arjunrao Gite*

Department of Urology, Government Medical College and Superspeciality Hospital, Chatrapati Sambhaji Nagar, Aurangabad, Maharashtra, India *E-mail: balajigite@yahoo.com

REFERENCES

- Pryde N, Vercnocke J, Lutchka J, Liaw A, Sessine M, Dhar N. The use of amniotic membrane injection as an adjunct in endoscopic urethral stricture management. Indian J Urol 2024;40:256-8.
- Stein MJ, DeSouza RA. Anterior urethral stricture review. Transl Androl Urol 2013;2:32-8.
- Singh J. Therapeutic adjuncts in the endoscopic management of urethral stricture disease: Past, present, and future. Front Urol 2024;4:01-07.
- Gallegos MA, Santucci RA. Advances in urethral stricture management. F1000Res 2016;5:2913.
- Oottamasathien S, Hotaling JM, Craig JR, Myers JB, Brant WO. Amniotic therapeutic biomaterials in urology: Current and future applications. Transl Androl Urol 2017;6:943-50.
- Pang KH, Chapple CR, Chatters R, Downey AP, Harding CK, Hind D, et al. A systematic review and meta-analysis of adjuncts to minimally invasive treatment of urethral stricture in men. Eur Urol 2021;80:467-79.
- Yürük E, Yentur S, Çakır ÖO, Ertaş K, Şerefoğlu EC, Semerciöz A. Catheter dwell time and diameter affect the recurrence rates after internal urethrotomy. Turk J Urol 2016;42:184-9.

This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

Financial support and sponsorship: Nil.

Conflicts of interest: There are no conflicts of interest.

Access this article online	
Quick Response Code:	Website:
更数為更	www.indianjurol.com
	DOI: 10.4103/iju.iju_308_24

How to cite this article: Gite VA. Role of spongiofibrosis in decision making for endoscopic management of anterior urethral stricture. Indian J Urol 2024;40:259.